Claims

1. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising the steps of

    i)   contacting a test compound with a AdipoR2 polypeptide,

    ii) detect binding of said test compound to said AdipoR2 polypeptide.

2. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising the steps of

    i)   determining the activity of a AdipoR2 polypeptide at a certain concentration of a test compound or in the absence of said test compound,

    ii) determining the activity of said polypeptide at a different concentration of said test compound.

3. A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising the steps of

i)   determining the activity of a AdipoR2 polypeptide at a certain concentration of a test compound,

ii)   determining the activity of a AdipoR2 polypeptide at the presence of a compound known to be a regulator of a AdipoR2 polypeptide.

4.   The method of any of claims 1 to 3, wherein the step of contacting is in or at the surface of a cell.

5.   The method of any of claims 1 to 3, wherein the cell is in vitro.

6.   The method of any of claims 1 to 3, wherein the step of contacting is in a cell-free system.

7.   The method of any of claims 1 to 3, wherein the polypeptide is coupled to a detectable label.

8.   The method of any of claims 1 to 3, wherein the compound is coupled to a detectable label.

9.   The method of any of claims 1 to 3, wherein the test compound displaces a ligand which is first bound to the polypeptide.

10.   The method of any of claims 1 to 3, wherein the polypeptide is attached to a solid support.

11.   The method of any of claims 1 to 3, wherein the compound is attached to a solid support.

12.   A method of screening for therapeutic agents useful in the treatment of a disease comprised in a group of diseases consisting of cardiovascular

diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising the steps of

i)   contacting a test compound with a AdipoR2 polynucleotide,

ii)   detect binding of said test compound to said AdipoR2 polynucleotide.

13.   The method of claim 12 wherein the nucleic acid molecule is RNA.

14.   The method of claim 12 wherein the contacting step is in or at the surface of a cell.

15.   The method of claim 12 wherein the contacting step is in a cell-free system.

16.   The method of claim 12 wherein polynucleotide is coupled to a detectable label.

17.   The method of claim 12 wherein the test compound is coupled to a detectable label.

18.   A method of diagnosing a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising the steps of

i)   determining the amount of a AdipoR2 polynucleotide in a sample taken from said mammal,

ii)   . determining the amount of AdipoR2 polynucleotide in healthy and/or diseased mammals.

19.   A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising a therapeutic agent which binds to a AdipoR2 polypeptide.

20.   A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising a therapeutic agent which regulates the activity of a AdipoR2 polypeptide.

21.   A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of . cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising a therapeutic agent which regulates the activity of a AdipoR2 polypeptide, wherein said therapeutic agent is

i)   a small molecule,

ii)   an RNA molecule,

iii)   an antisense oligonucleotide,

iv)   a polypeptide,

v)   an antibody, or

vi) . a ribozyme.

22.   A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising a AdipoR2 polynucleotide.

23.   A pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases, in a mammal comprising a AdipoR2 polypeptide.

24.   Use of regulators of a AdipoR2 for the preparation of a pharmaceutical composition for the treatment of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroentero-logical diseases, cancer, hematological diseases, respiratory diseases, inflam-mation, neurological diseases, urological diseases, in a mammal.

25.   Method for the preparation of a pharmaceutical composition useful for the treatment of a disease comprised in a group of diseases consisting of cardio-vascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neuro-logical diseases, urological diseases, in a mammal comprising the steps of

   i)   identifying a regulator of AdipoR2,

   ii)   determining whether said regulator ameliorates the symptoms of a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neuro-logical diseases, urological diseases, in a mammal; and

iii) combining of said regulator with an acceptable pharmaceutical carrier.

26. Use of a regulator of AdipoR2 for the regulation of AdipoR2 activity in a mammal having a disease comprised in a group of diseases consisting of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, respiratory diseases, inflammation, neurological diseases, urological diseases.